

REMARKS

Claim Amendments

In an effort to focus Applicants' claim and move the case forward, Applicants have amended independent claims 1, 8, and 15 to include additional limitations from the specification. Support for these amendments may be found in the original specification at page 1, lines 21-24, and page 39, lines 19-25. Applicants submit that the amendments do not introduce any new matter into the patent application.

Non-Statutory Double Patenting

Claims 1-20 are rejected on the ground of non-statutory double patenting over the claims in Application No. 10/675,671, Application No. 10/692,417, and Application No. 10/651,724. In response, Applicants herewith submit three Terminal Disclaimers in compliance with 37 C.F.R. § 1.321 for the present application to cure the double patenting rejections in the present application.

Claim Rejections – 35 U.S.C. § 102 Over Cho

Claims 1-20 stand rejected under 35 U.S.C § 102(e) as being anticipated by Cho, *et al.* (U.S. Patent No. 7,160,252). To anticipate claims 1-20 under 35 U.S.C. § 102(e), two basic requirements must be met. The first requirement of anticipation is that Cho must disclose each and every element and limitation as set forth in the Applicant's claims. The second requirement of anticipation is that Cho must enable Applicant's claims. Cho does not meet either requirement and therefore does not anticipate Applicant's claims.

Cho Does Not Disclose Each and Every Element Of The Claims Of The Present Application

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros.*

v. *Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Independent claim 1 of the present application recites:

1. A method for administering devices within a network, the method comprising:

receiving, within the network, at least one user metric for a user;

receiving, from a device within the network, device content metadata describing content received by the device, the content varying according to interests of the user;

identifying an action in dependence upon the user metric and the device content metadata; and

executing the action within the network.

As explained in more detail below, Cho does not disclose each and every element of claim 1, and Cho therefore cannot be said to anticipate the claims of the present application within the meaning of 35 U.S.C. § 102(e).

**Cho Does Not Disclose Receiving, From A Device Within The Network,
Device Content Metadata Describing Content Received By The Device,
The Content Varying According To Interests Of The User**

The Office Action takes the position that Cho at column 3, lines 23-24, column 4, lines 60-67, column 6, lines 20-37, and column 7, lines 1-23, discloses the second element of claim 1: receiving, from a device within the network, device content metadata describing content received by the device, the content varying according to interests of the user. Applicants respectfully note in response, however, that what Cho at column 3, lines 23-24, column 4, lines 60-67, column 6, lines 20-37, and column 7, lines 1-23, in fact discloses is:

[column 3, lines 23-24] Digitized signal data is provided as input to a respiratory disturbance detection algorithm.

[column 4, lines 60-67] As will be described, the IMD is provided for processing and/or storing sensed signal data. A physiological signal received may be a thoracic impedance measurement from which tidal volume and respiration rate may be determined for calculating minute ventilation. A physiological signal may alternatively be an ECG, EGM, blood pressure, activity sensor, oximeter or other sensor signal that includes variations due to the respiratory cycle.

[column 6, lines 20-37] FIG. 3 is a flow chart providing additional details regarding methods for determining metrics of respiratory disturbances in one embodiment of the present invention. Upon detecting a respiratory disturbance, it may be desirable to determine various metrics of the disturbance in order to assess the severity of the disturbance and/or track changes in these metrics over time as a way of assessing relative improvement or worsening of the associated pathological condition. In method 200, an impedance signal input is received at step 205 and used for determining minute ventilation, at step 210, based on derived tidal volume and respiration rate. At step 215, the minute ventilation ("MV" in FIG. 3) (or alternatively the derived tidal volume or respiration rate) is compared to a predetermined apnea detection threshold and hyperpnea detection threshold. If a threshold crossing is detected, a respiratory disturbance is detected at step 220, and the time of the onset of the disturbance is flagged at step 225.

[column 7, lines 1-23] FIG. 4A is a flow chart summarizing steps included in an alternative embodiment of a method for monitoring for respiratory disturbances. Alternative embodiments may detect pathological breathing patterns by determining a patient's respiration rate from any physiological signal that includes variations due to the influence of inspiration and expiration. At step 305, a physiological signal input is received. A physiological signal that includes respiration related variations may be, but is not limited to, an ECG signal, an EGM signal, a blood pressure signal, an activity sensor signal, heart sounds, or an oxygen saturation signal. Various implantable sensors are known for use with implantable medical devices. Examples of implantable sensors that are believed to be appropriate for use with the present invention for deriving respiration parameters are: an absolute blood pressure sensor as generally disclosed in U.S. Pat. No. 6,024,704 issued to Meador et al. or U.S. Pat. No. 5,535,752 issued to Halperin et al.; a piezoelectric activity sensor as generally disclosed in U.S. Pat. No. 4,485,813 issued to Anderson et al.; and an oxygen sensor generally disclosed in U.S. Pat. No. 6,162,180 issued to Miesel et al., all of which patents are incorporated herein by reference in their entirety.

That is, Cho at column 3, lines 23-24, column 4, lines 60-67, column 6, lines 20-37, and column 7, lines 1-23, discloses implantable sensors that provide physiological signals to a respiratory disturbance detection algorithm such as, for example, thoracic impedance measurements, ECG, EGM, blood pressure, activity sensor, oximeter, and so on. Cho's implantable sensors that provide physiological signals to a respiratory disturbance detection algorithm, however, do not disclose receiving, from a device within the network, device content metadata describing content received by the device where the content varies according to interests of the user as claimed in the present application because Cho's physiological data received by the implantable sensors does not vary according to user interest. As claimed, the content received by the device in the present application varies according to user interest. Applicants describe examples of such content in the original specification at page 1, lines 22-25, to include television shows received by a television or radio programs received by a radio. Both television shows and radio programs are examples of content that may vary according to user interest. In contrast, Cho's physiological data received by an implantable sensor is always related to the same physiological measurement and does not vary according to user interest. Cho's implantable sensors that provide physiological signals to a respiratory disturbance detection algorithm, therefore, do not disclose receiving, from a device within the network, device content metadata describing content received by the device where the content varies according to interests of the user as claimed in the present application. Because Cho does not disclose each and every element and limitation of Applicants' claims, Cho does not anticipate Applicants' claims, and the rejections under 35 U.S.C. § 102(e) should be withdrawn.

Furthermore, Cho's implantable sensors that provide physiological signals to a respiratory disturbance detection algorithm do not disclose receiving device content metadata describing content received by the device as claimed in the present application because device content metadata as claimed in the present application is not received from Cho's implantable sensors. Device content metadata is data that describes the content received by a device within the network such as, for example, the name of a

television show, the type of television show, the actors within the television show received by a television—as opposed to the television show itself, which is the actual content received by a television. Although Cho discloses implantable sensors that provide physiological signals, Cho at these reference points does not disclose that Cho’s implantable sensors provide data about the physiological signals. That is, Cho’s implantable sensors do not provide device content metadata for the physiological signals received by the sensors. Cho’s implantable sensors that provide physiological signals to a respiratory disturbance detection algorithm, therefore, do not disclose receiving device content metadata from a device within the network as claimed in the present application. Because Cho does not disclose each and every element and limitation of Applicants’ claims, Cho does not anticipate Applicants’ claims, and the rejections under 35 U.S.C. § 102(e) should be withdrawn.

**Cho Does Not Disclose Identifying An Action In Dependence
Upon The User Metric And The Device Content Metadata
And Executing The Action Within The Network**

The Office Action takes the position that Cho at column 5, lines 20-26, column 6, lines 9-19 and 65-67, discloses the third and fourth elements of claim 1: identifying an action in dependence upon the user metric and the device content metadata and executing the action within the network. Applicants respectfully note in response, however, that what Cho at column 5, lines 20-26; column 6, lines 9-19 and 65-67 in fact discloses is:

[column 5, lines 20-26] At step 120, measurements of the respiratory disturbance are determined and stored. Such measurements preferably include at least the duration of the disturbance. At step 125, detection of the respiratory disturbance may optionally trigger a warning to medical personnel, the delivery of a therapy, and/or the storage of physiological data in the implanted device.

[column 6, lines 9-19] An optional warning to medical personnel by an external device or triggering of a therapy delivery or data storage by an internal device may be generated at step 185. A triggered therapy may be, but is not limited to, cardiac pacing, delivery of a pharmacological agent, insulin delivery, stimulation of the upper airway muscles, the diaphragm, or other electrical stimulation of the central nervous system, peripheral

nerves or smooth or skeletal muscle. The method 150 is preferably repeated to continue monitoring for respiratory disturbances by returning to step 155.

[column 6, lines 65-67] At optional step 260, a warning to alert medical personal and/or a therapy delivery and/or data storage trigger may be generated.

That is, Cho at paragraphs column 5, lines 20-26, column 6, lines 9-19 and 65-67, discloses triggering an event upon detection of a respiratory disturbance using physiological signals. Cho's triggering an event upon detection of a respiratory disturbance using physiological signals, however, does not disclose identifying an action in dependence upon the user metric and the device content metadata and executing the action within the network as claimed in the present application because Cho's event that is triggered is not identified based upon device content metadata as claimed in the present application. As explained above, device content metadata is data about the content received by a device within the network such as, for example, the name of a television show, the type of television show, the actors within the television show received by a television—as opposed to the television show itself, which is the actual content received by a television. Although Cho discloses triggering an event based on physiological signals used to measure respiratory disturbance, Cho at these reference points does not disclose triggering an event based on data about the physiological signals. That is, Cho does not disclose triggering an event based on device content metadata for the sensors providing the physiological signals. Because Cho does not disclose each and every element and limitation of Applicants' claims, Cho does not anticipate Applicants' claims, and the rejections under 35 U.S.C. § 102(e) should be withdrawn.

Cho Does Not Enable Each and Every Element Of The Claims Of The Present Application

Not only must Cho disclose each and every element of the claims of the present application within the meaning of *Verdegaal* in order to anticipate Applicants' claims, but also Cho must be an enabling disclosure of each and every element of the claims of the present application within the meaning of *In re Hoeksema*. In *Hoeksema*, the claims

were rejected because an earlier patent disclosed a structural similarity to the Appellant's chemical compound. The court in *Hoeksema* stated: "We think it is sound law, consistent with the public policy underlying our patent law, that before any publication can amount to a statutory bar to the grant of a patent, its disclosure must be such that a skilled artisan could take its teachings in combination with his own knowledge of the particular art and be in possession of the invention." *In re Hoeksema*, 399 F.2d 269, 273, 158 USPQ 596, 600 (CCPA 1968). The meaning of *Hoeksema* for the present case is that unless Cho places Applicants' claims in the possession of a person of ordinary skill in the art, Cho is legally insufficient to anticipate Applicants' claims under 35 U.S.C. § 102(e). As explained above, Cho does not disclose each and every element and limitation of independent claim 1 of the present application. Because Cho does not disclose each and every element and limitation of the independent claims, Cho cannot possibly place the elements and limitations of independent claim 1 in the possession of a person of ordinary skill in the art. Cho cannot, therefore, anticipate claim 1 of the present application.

Relations Among Claims

Independent claims 8 and 15 are system and computer program product aspects, respectively, for administering devices within a network corresponding to the method of independent claim 1 for administering devices within a network. Claim 1 is allowable for the reasons set forth above. Claims 8 and 15 are allowable for the same reasons that claim 1 is allowable. The rejections of claims 8 and 15 therefore should be withdrawn, and claims 8 and 15 should be allowed.

Claims 2-7, 9-14, and 15-20 depend respectively from independent claims 1, 8, and 15. Each dependent claim includes all of the limitations of the independent claim from which it depends. Because Cho does not disclose or enable each and every element of the independent claims, Cho does not disclose or enable each and every element of the dependent claims of the present application. As such, the rejections of claims 2-7, 9-14, and 15-20 should also be withdrawn, and the claims should be allowed.

Conclusion

Claims 1-20 stand rejected under 35 U.S.C. § 102 as being anticipated by Cho. For the reasons set forth above, Cho does not disclose each and every element of Applicants' claims and does not enable Applicants' claims. Cho therefore does not anticipate Applicants' claims. Claims 1-20 are therefore patentable and should be allowed. Applicants respectfully traverse each rejection individually and request reconsideration of claims 1-20.

The Commissioner is hereby authorized to charge or credit Deposit Account No. 09-0447 for any fees required or overpaid.

Respectfully submitted,

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By:



Thomas D. Fortenberry
Reg. No. 56,537
Biggers & Ohanian, LLP
P.O. Box 1469
Austin, Texas 78767-1469
Tel. (512) 472-9881
Fax (512) 472-9887
ATTORNEY FOR APPLICANTS